Date: September 24, 2009

Environmental Protection Agency - Region 6
Mr. Jose Torres – Region 6 Groundwater UIC Section
1455 Ross Avenue
Suite 1200
Dallas, TX 75202

Re: Application of TexCom Gulf Disposal, LLC
TCEQ – Underground Injection Control
Permit Nos. WDW410,WDW411, WDW412 andWDW413

Dear Mr.Torres,

This is to act as a formal request for a meeting between the Federal office of the EPA, Region 6, CROW and Stop the Toxic Wells.

As representatives of two citizen groups, Citizens Residents Opposing Wells (CROW) and Stop the Toxic Wells, we are requesting your assistance in reviewing the subject permit requests pending approval of the Texas Commission on Environmental Quality (TCEQ) submitted by TexCom Gulf Disposal, LLC in August 2005. These permits request approval to install and operate four Class I commercial injection wells in Montgomery County, TX.

Our groups were organized by area citizens when we became aware of the injection well permit requests submitted by TexCom. We are not a group of uninformed residents with a "not in my backyard" mentality. Our members include a core committee of specialists who have experience in engineering, environmental, hydrology, geology, legal and health issues, who have researched the data regarding the proposed site, and all of whom are convinced that the proposed injection site is not suitable for this type of activity. Located in the old Conroe oil field, the area is proliferated with abandoned wells, many of which have no documentary record of their exact location, condition or method of closure. There is also an underlying fault in the area which we feel poses a significant risk of failure. We are not alone in our belief that the proposed site is not suitable for commercial injection wells. The Lone Star Groundwater Conservation District, Montgomery County, the city of Conroe, the Community Association of The Woodlands, and The Woodlands Joint Powers Association agree with our position, and several other residential communities in the area have initiated resolutions opposing these injection well permits. In addition, our state legislators also agree that the site is unsuitable for this activity. They contend that approval of these permits would have a detrimental effect on the continued growth and prosperity of Montgomery County, as well as pose a very significant risk of jeopardizing the health and well being of all 54 Texas counties who draw their drinking water supplies from the Gulf Coast aquifer.

We recognize that the EPA does not have direct control over the approval of these permits, since the state TCEQ division has primary responsibility for administering the Underground Injection Control (UIC) Program authorized by the Safe Drinking Water Act. However, the EPA's UIC Program summary does indicate that the EPA maintains an oversight capacity of the program and has an obligation to insure that program requirements are being adequately enforced. In our view, the TCEQ is not adequately enforcing the UIC Program requirements set forth in the Safe Drinking Water Act and our comments below will outline our reasoning for reaching this conclusion.

Like most citizens, before this injection well issue developed, we were naively under the impression that federal and state laws adequately regulate businesses whose operations negatively impact our existing homes, neighborhoods and the safety of our natural resources. However, after attending all hearings held since these permit applications were filed in August 2005, we have become alarmingly aware that there are significant gaps in existing laws and regulations to adequately protect our natural resources, as well as the public interest rights of individual citizens. In relation to these permits, it is our view that both the State Office of Administrative Hearings (SOAH) and the TCEQ have demonstrated a very strong partiality to protecting "the monetary interests of businesses" rather than serving the best interests of Texas' natural resources and the health and safety of its citizens. In fact, it appears that the TCEQ is not even living up to their mission statement "to protect the natural resources of the State of Texas" nor are they following their philosophy to "accomplish their mission by basing their decisions on law AND COMMON SENSE." .

A clear indication supporting this belief is evident in the SOAH Proposal For Decision comments. In the contested case hearing, there were significant differences of opinion rendered by the testifying geologists from the opposing sides in the interpretation of data relating to the suitability of the site for operation of injection wells. In each instance, the SOAH judges chose to accept the position presented by the Applicant (TexCom) and to disregard the opposing position put forth by the Protestants, frequently referring to the differences of opinion as "not a decisive issue for the case". Even TCEQ Commissioner Larry Soward noted in the November 2008 TCEQ hearing that he was perplexed by SOAH's recommendation for approval. Commissioner Soward stated that after reading the testimony and facts outlined in the Administrative Law Judge's Proposal for Decision, he fully expected that SOAH's recommendation would be ***to Deny*** the permits. He **further indicated that his preference would have been "to deny the permits without prejudice" at the November 19 hearing** for the following reasons:

- the burden of proof was not met by the Applicant (TexCom);
- insufficient evidence was presented to substantiate that ground water would be protected;
- no evidence to indicate that issuance of the permits would be of benefit to the public or that consideration of the protection of the public interest was presented;
- no evidence of feasible alternatives to injection well disposal was presented.

He felt that giving the Applicant (TexCom) "another chance" by allowing them to conduct new fall off tests was not in keeping with the "rules of fairness", as he suspected that if the Protestants had asked for "another chance" to prove their case, the majority of the Commissioners would not have afforded them that opportunity. He reluctantly agreed to "go along" with the remand giving the Applicant the opportunity to conduct further testing as recommended by the other two commissioners (Bryan Shaw and Buddy Garcia) and present same for another SOAH hearing, since that would at least stop the issuance of the permits at that time. He also indicated that the next SOAH hearing should not be limited to providing only the fall off test results, but should also provide for the following:

- both sides (Applicant and Protestants) should be given full opportunity to develop and present evidence on all issues discussed at the November 19 hearing;
- Applicant should be required to present specific proof of public benefit;
- Applicant should be required to provide specific alternative options to injection well disposal of wastes.

Unfortunately, however, when the new SOAH hearings are held, Commissioner Soward will no longer be a TCEQ commissioner since he retired August 31. We therefore, have no assurance that his recommendations, as outlined above, will be incorporated in the SOAH hearings or at the final TCEQ hearing when it is presented and voted upon by the Commissioners.

Commissioner Soward also strongly urged our state legislators who were in attendance at the November 2009 hearing to take a hard look at the UIC program. As currently drafted, he indicated that in many instances, the Commissioner's hands are tied as existing statutes do not provide the flexibility to deal with current issues such as our dwindling underground water supplies. He further indicated that the UIC Program was put into effect years ago when groundwater was more plentiful and aquifers were not in jeopardy as they are today. Continuing to inject large quantities of waste as we have in the past is not the prudent course of action given the environmental challenges that we face today. Therefore, the UIC Program likely should be revised to add stronger safeguards to protect our underground water supplies.

Also in the November 19 hearing, Commissioner Shaw commented that the TCEQ makes a concerted effort to minimize the burden of the regulatory process for applicants which, in our view, provides an unfair advantage to the Applicant over the rights of the public. However, he did acknowledge that in this case perhaps there are parts of the process that need to be strengthened. He further indicated that the Commission looks forward to the legislators taking steps to address the issues and inadequacies in the UIC process as noted by Commissioner Soward.

In response to this request from the Commissioners, Representative Brandon Creighton and Senator Robert Nichols introduced four bills in the 81st state legislative sessions in an attempt to institute some safeguards into our existing laws which will provide additional protection for our underground water resources and also recognize and protect the rights

of the public. Unfortunately, none of these bills made it to a floor vote and ultimately died in the 81st legislative session. While our legislators intend to introduce additional legislation to address the gaps in existing laws in the next legislative session (2011), we feel that this matter cannot wait for that to occur. We therefore urge you to exercise your right of oversight authority and take a direct role in reviewing and intervening, as appropriate, in this case.

To that end, we request that representatives from the EPA meet with us to discuss and clarify several issues relating to the permit approval process and, more specifically, to the suitability of the proposed site for injection well use. We have outlined the questions that we would like to discuss in the attached document (Exhibit A), and look forward to a response from your office establishing a date, time and location for appropriate members of your staff to meet with us to discuss these issues. We request this meeting take place within 45 days of receipt of this request. Once the date and time is confirmed we the citizen groups will make necessary arrangements for an appropriate meeting facility.

Respectfully,

(b) (6) [redacted]

[redacted]

Opposing Wells

Attachment

cc: US EPA Region 6 (6WQSG) – Larry Starfield
US EPA Region 6 (6WQSG) – Philip Dellinger
US EPA Federal Office - Lisa Jackson

EXHIBIT A

QUESTIONS FOR THE EPA

Re: TexCom Gulf Disposal, LLC
Proposed Class 1 Injection Wells WDW410, WDW411, WDW412, and WDW413
Montgomery County, Texas

1. TexCom's property is located in the T.C. Howell Survey where the Texas Railroad Commission shows abandoned well number 66D. TexCom testified that well number 66D is believed to be in the Lemuel Smith Survey and not in the T.C. Howell Survey. One can conclude that the opposite could be true, i.e., a well that should be on the TexCom property could be mislocated in another survey.

   Although Texas Railroad Commission records show wells in the vicinity were plugged, we know otherwise. Mr. Edwin Stephan, a former Conroe Oil Field worker, provided undisputed testimony that wells were often just capped and covered up without proper plugging, including wells in the immediate area of the proposed disposal wells.

   Considering the age of the Conroe Oil Field (1932), does the EPA agree that abandoned wells could exist on the TexCom property but not shown on the property? Is this possibility sufficient to deny permits?

2. State law, Texas Administrative Code, Title 30, Part 1, Chapter 331, Subchapter G, Rule 331.121(a)(2)(C) requires the applicant "…to identify, locate, and ascertain the condition of abandoned wells within the area of review which penetrates the injection or the confining zones". The Cockfield Formation (proposed waste injection zone) has been compromised by hundreds of oil and gas wells. Many of these wells in the AOR were drilled in the 1930's.

   The application as submitted by TexCom Gulf Disposal, LLC does not meet the requirements of State Law. I believe it is impossible to ascertain the condition of all the abandoned wells in the two and one-half mile required Area of Review and therefore permits should be denied.

   Does the EPA agree that ascertaining the condition of abandoned wells should include the following?

   A. Physically determine that abandoned wells have been plugged.
   B. With the lack of mud data, physically determine that the mud weight and gel strength are sufficient to resist the increase in formation pressure caused by injection.
   C. Determine the casing integrity of each abandoned well.

3. TexCom's permit application shows the cone of pressure influence extending out to 150 feet; however, TexCom testified that the application was in error and the cone of pressure influence would extend to 750 feet from the wellbores. Ms. Kathryn Hoffman, TCEQ Project Manager, testified that she ran calculations over the weekend break of the contested case hearing and found the cone of influence to be over 5,000 feet. She, however, concluded that her original model was probably more accurate at 150 feet. If TexCom's revised cone of influence is correct, why did TCEQ not calculate 750 feet in their initial and subsequent reviews? Why did Ms. Hoffman calculate thousands of feet during the hearing but then conclude that her original calculation of 150 feet was probably more accurate?

   In describing the Middle Cockfield, TexCom states in their permit application (V.B.1.b.ii) that "Deltaic sands in the Middle unit do not correlate well between boreholes suggesting that depo-centers are connected to small rivers feeding small delta systems." Doesn't this suggest that the cone of pressure influence could extend for a distance considerably greater than 750 feet?

   It appears that TCEQ is incompetent and really doesn't know the extent of the cone of pressure influence.

   Does the EPA agree that permits should not be issued with the current vagueness of the cone of pressure influence?

4. Testifying geologists all had some differences of opinion during the contested case hearing. In fact, Dr. Langhus (witness for TexCom) testified that one thing distinguishing one geologist from another is disagreement. I believe this is extremely important and reason for denial of permits. Disagreement indicates that geology of the Conroe Field is so complex that prudent judgment should dictate the possibility of transmissive faults and the need to deny permits.

   Does the EPA agree that geology in the area of a salt dome is complex due to fracturing of overlying strata during the formation of the salt dome?

5. Texas law, 30 TAC 331.121(c) (4), states, "The owner or operator shall demonstrate to the satisfaction of the executive director that:" "(A) the confining zone is separated from the base of the lowermost USDW or freshwater aquifer by at least one sequence of permeable and less permeable strata that will provide an added layer of protection for the USDW or freshwater aquifer in the event of fluid movement in an unlocated borehole or transmissive fault; or (B) within the area of review, the piezometric surface of the fluid in the injection zone is less than the piezometric surface of the lowermost USDW or freshwater aquifer, considering density effects, injection pressures, and any significant pumping in the overlying USDW or freshwater aquifer; or (C) there is no USDW or freshwater aquifer present.

In reference to (A) above, all those testifying agree that the USDW extends to the top of the confining zone (Jackson Formation); therefore, it is impossible to have a permeable and less permeable strata separating the USDW and the confining zone. In reference to (B) above, testimony shows piezometric surface of the fluid in the injection zone is greater than the piezometric surface of the lowermost USDW. Part (C) above is not applicable.

The entire Cockfield Formation is defined by TexCom as the "injection zone". The Jackson Formation is immediately above the Cockfield and defined as the main confining zone. The USDW of the Catahoula Aquifer extends to the top of the Jackson Formation. In other words, a sequence of permeable and less permeable strata that will provide an added layer of protection for the USDW does not exist.

It should be pointed out that TexCom attorneys tried to discredit the Catahoula aquifer as a USDW in violation of 40 CFR, Chapter 1, Subchapter D, Subpart B, Part 146.4. TexCom spent a considerable amount of time convincing the Administrative Law Judges that water in the Catahoula Aquifer should not be considered adequate for drinking because Class II wells had been permitted in this aquifer. Possible existence of Class II wells is totally irrelevant when considering the requirements of law for Class I wells. In fact, in TexCom's application (V.B.3.b) they state:

> "No water wells use Catahoula aquifers in the AOR although the water is likely treatable to health and aesthetic standards."

In accordance with Part 146.4, the Catahoula Aquifer does not qualify for exemption and should not be overlooked as a valid USDW.

Even if all abandoned wells were identified and proved properly abandoned (which they are not), the law is designed to protect our aquifers and USDW due to an *unlocated borehole or transmissive fault*. Due to the existing geology, improperly abandoned wells, and the "unlocated borehole" provision, TexCom cannot possibly satisfy the requirements of law.

Does the EPA agree that the law cannot be satisfied, and that permits should not be issued?

6. TexCom repeatedly emphasized during the contested case hearing that the "injection interval" would be in the Lower Cockfield Formation. TexCom argued that injected waste would be confined in the Lower Cockfield due to the 27-foot shale strata separating the Lower and Middle Cockfield sands. This contradicts their own permit application (V.B.3.c) which states:

> "The Injection Zone in the subject facility includes the Upper, Middle, and Lower Cockfield Sand Members. These three thick sand packages are separated by persistent shales but **the shales appear not to be thick enough to isolate the individual sand members either stratigraphically or across faults in the AOR".** (bold added for emphasis)

If TexCom was so sure of waste confinement in the Lower Cockfield, why do they identify the entire Cockfield Formation (all three sands) as the "Injection Zone"? The answer is obvious from their permit application. TexCom knows that the shale members of the Cockfield are inadequate to contain waste in the lower sand.

Does the EPA agree that TexCom's permit application would allow TexCom to utilize the entire Cockfield formation? Furthermore, does the EPA agree that waste material could reach the Upper Cockfield and be in direct contact with a multitude of abandoned wells?

7. Uncontested calculations by expert witness, Mr. Art Wilson, prove that the increase in formation pressure due to injection is adequate to displace the mud plug in an abandoned well. Our Gulf Coast Aquifer System (Chicot, Evangeline, and Jasper Aquifers) as well as the Catahoula Aquifer could be contaminated by flow of waste through corroded well casing.

   Does the EPA agree that the potential for aquifer contamination exists and therefore permits should be denied?

8. Title 40 CFR, Chapter 1, Subchapter D, Subpart B, Part 146.13 (b)(4) covers the minimum requirements for monitoring wells to include "The type, number and location of wells within the area of review to be used to monitor any migration of fluids into and pressure in the underground sources of drinking water, ….". TexCom did not provide a plan for monitoring wells in their permit application.

   Does the EPA agree that TexCom's permit application is incomplete and should not be approved as such?

9. TexCom's application also did not address the following requirements of law:

   Part 146.14 (a)(12) Contingency plans to cope with all shut-ins or well failures so as to prevent migration of fluids into any underground source of drinking water.

   Part 146.14 (a)(13) Plans (including maps) for meeting the monitoring requirements in § 146.13 (b).

   Part 146.14 (a)(14) For wells within the area of review which penetrate the injection zone but are not properly completed or plugged, the corrective action proposed to be taken under 40 CFR 144.55.

The fact is, oil production was in the Upper Cockfield and wells are known to be unplugged. TexCom's "injection zone" includes the Upper Cockfield! Over 500 abandoned wells exist in the area of review. TexCom did not submit a plan for corrective action on even one of these abandoned wells.

Does the EPA agree that TexCom's permit application is incomplete and should not be approved as such?

10. In TexCom's permit application, Attachment C, Public Interest Demonstration, TexCom states that pollution exposure to the public is improved through reduction/elimination of air exposure from waste disposal. TexCom will use atmospheric storage tanks with conventional venting. No vapor recovery or odor abatement systems are planned; therefore, each time a truck offloads, saturated vapor in the receiving tank(s) will be displaced to the atmosphere along with the chemicals contained therein.

    TexCom testified that some of the waste material would have odor. Can permits be denied in this residential neighborhood due to obnoxious odor and the presence of chemicals in the atmosphere?

11. If the EPA is in agreement with TexCom's failure to comply with the requirements of law and the extreme danger of the proposed injection program at the planned site, is the EPA willing to initiate the public hearing process in accordance with §145.34 (b)(1)? This gives the State 30 days to demonstrate why the State program is in compliance. If the State does not demonstrate compliance, the EPA can then schedule a public hearing, which gives interested parties the opportunity to make written or oral presentations. Per §145.34(b)(3), the State has the opportunity to take remedial action; otherwise, the Administrator shall withdraw program approval.

12. TexCom's registered professional engineer, Mr. Brassow, testified at the Conroe hearing that there would be no vesting from the tankage, yet this statement was not addressed by TCEQ. Please advise how this would be permitted.

13. Dr Rice and Mr. Crassow stated under oath that the wastes would not generate any odor. How can this be known and attested to at this time when it is not known what wastes will be included in every load?

14. Mr. Brassow included three (3) 30,000 gallon capacity tanks in the permit application when only 10,000 gallon capacity tanks containing VOCs can be built in Montgomery County, a non-attainment area. Why did TCEQ personnel approve this when it is in violation of Montgomery County regulations.

15. **Pressure in the Injection Zone**

1. The operator (TexCom) provided information in the permit applications that indicates that the water inside the proposed WDW-410 injection well can rise up to about 900 ft from the surface. Doesn't that mean that even without any injection of waste into the proposed injection zone, there is already a potential threat of salt water contamination to the underground sources of drinking water throughout the field?

2. Doesn't authorizing industrial waste injection into a zone with a pressure already high enough to cause the movement of salt water into a more shallow drinking water aquifer increase the threat of injected waste liquids contaminating the underground drinking water?

3. Do you agree with the assessment provided during the contested case hearing that the radius of the cone of influence for the proposed injection operation is 150 feet or less? Please elaborate in your response.

16. **Threat of Abandoned Wells in Area with Insufficient Data**

1. Did you have an opportunity to carefully review the fact that there are abandoned wells in the area of the proposed injection wells for which there is no data regarding their depth? Were you able to determine their location and distance in relation to the proposed injection well site?

2. Can you provide an estimate of how many of those abandoned wells are in the injection zone and where they are located?

3. Can you estimate and advise the percentage of risk of contamination that exists due to the presence of those wells if a permit to inject is approved?

4. Please advise your opinion as to the impact that wells for which there is no location description would have on the threat of contamination of the underground drinking water by the proposed injection.

17. Transmissivity of the Faults

1. Do you agree with the assessment provided during the contested case hearing that there is a fault located south of the location of the proposed injection well? If yes, please provide your estimate of the distance from the injection well to that fault?
2. Some of our members who have spent their careers in the oil and gas industry working in the Conroe Field have indicated that in their experience, it was

determined that the faults in the field are vertically transmissive. Have you had the opportunity to review any credible information which indicates that the Conroe Field faults are vertically transmissive. Please elaborate.
3. These individuals have also said that in their experience the faults are horizontally transmissive. Have you reviewed any reliable information which leads you to agree that the faults in the Conroe Field are horizontally transmissive. Please elaborate.

18. Field Structure

1. Individuals with prior work experience in the Conroe oil field have reported there are areas in the Conroe field where producing wells produced oil with no significant amounts of water, while neighboring wells produced a lot of water with the oil, ultimately resulting in almost 100% water. In your study of the Conroe Field, did you have the opportunity to investigate this phenomenon, and how do you explain it?

2. Even though there was not much discussion on gas production in the Conroe Field during the contested case hearing, individuals with prior work experience in the Conroe oil field have indicated that pressurized gas pockets that formed in the shallow aquifers sometimes caused explosions during drilling operations. Please advise if you have any knowledge of the presence of natural gas in the Conroe Field and the possibility of explosion.

3. In an 8-15-2009 news article published by Bloomberg News, University of Texas Institute of Geophysics scientists have reported that there is a strong possibility that wells drilled through natural gas fields may have caused recent earthquakes in the Dallas-Fort Worth area. Please advise if the EPA is aware of this "induced earthquake" phenomena and how it would impact the UIC program and permit approval requirements.

19. TCEQ Permit Approval Process

1. Was it appropriate for the TCEQ Commissioners not to deny the UIC permit application due to the Commissioners' unanimous agreement that the applicant (TexCom) did not meet their burden on the application?

2. Given the critical importance of protecting USDWs (sources of drinking water supply), it seems clear that TexCom could not prove that they would not impair the drinking water supplies. What can the EPA do to make clear to the TCEQ that they need to deny the UIC application?

20. EPA Super Fund Budget Cuts

The Houston Chronicle recently reported (8-10-2009) that EPA's budget for Super Fund cleanups has been or will be significantly reduced. Since the intention of TexCom is to operate this site solely as a commercial waste disposal business, the viability of the business relies entirely on the successful, ongoing operation for the disposal of waste.

1. In the event of a spill or accident at the site, would the operation of the wells be shut down? If so, who would be responsible for cleanup expenses?
2. In the event TexCom closes the business or files for bankruptcy, who would be responsible for expenses incurred for closure of the wells and cleanup of the site?
3. What impact will the EPA Super Fund budget cuts have if either of these events should occur?

21. **Environmental Compliance History of Applicant (TexCom) and Majority Partner (Foxborough Energy, LLC)**

One of the requirements set forth in the permitting process is consideration of the compliance history of the applicant. In the contested case hearing, the issue was raised that since the Applicant had no prior experience operating an injection well facility, there was no compliance history to report. Therefore, Applicant was granted the "average by default" classification. However, since the permit was originally filed, Foxborough Energy LLC acquired a majority interest in TexCom Gulf Disposal, LLC. Since Foxborough operates injections wells in Region 6 (specifically in Texas and Oklahoma), please provide information on Foxborough's compliance history in the relation to the operation of those facilities or any other such facilities of which you are aware.

22. Surface Facility Regulations

The majority of the contested case hearing was focused on the underground injection of waste however there are issues related to the design, operation and use of the surface facility that will offload, process and temporarily store the waste material received at the site for underground injection. Our concerns with regard to the surface facility relate to the fact that TCEQ has no specific set of solid-waste rules which expressly address a surface facility at an underground injection site, and the risks to surface waters, individual residential water wells and air quality in close proximity of the site.

1. The rules cited in SOAH's Proposal for Decision do not specifically address the site in question. 30 TAC Chapter 335, relates to hazardous or non-hazardous waste landfill facilities, and 30 TAC Chapter 305, mainly sets forth general rules for permit applications and amendments. Please advise if there federal regulations which establish specific criteria for the construction, operation and handling of solid waste at the surface facility located at underground injection site. In the absence of same, please advise how this deficiency should be addressed.

2. During the processes of offload, processing and ultimate injection of waste, it is anticipated that odors and particulate will be released into the atmosphere in the proximity of the site. The subject of air quality permitting was dismissed in SOAH's Proposal for Decision as not being applicable to "the current proceeding". What air quality permits and requirements must be met in relation to the noted issues in the operation of this UIC facility? Please advise if such applications have been made, with whom and the status of such filings.

Statement

Recently, the Region 6 EPA office intervened on behalf of the citizens of El Paso by assisting in blocking the reopening of a controversial copper smelter in their area. As a result, their citizens do not have to lose sleep over the prospect of having to breathe the smelter's emissions. Based on what you have learned thus far about this proposed injection well project, do you feel that you are ready to "federalize" these proceedings if necessary, to ensure that the citizens of Montgomery County and the 53 other Texas counties that utilize the Gulf Coast aquifer for USDW don't have to lose any sleep over the possibility of losing their source of drinking water?